

Amendments to the Claims

This listing of the claims replaces all prior versions and listing of the claims in the present application.

Listing of Claims

1-20. (canceled)

21. (new) A nanocarbon producing apparatus, comprising:

a graphite target having an impact site;

a chamber in which said target is housed;

a window in a wall of said chamber for passage of light;

a light source that irradiates the light through said window onto said impact site, the light impacting said impact site at a first non-zero angle and ejecting a plume of nanocarbons at a second angle different from said first angle;

a recovery unit that collects the nanocarbons in the plume;

a first pipe extending at said first angle from adjacent to said impact site toward said window and through which the light passes; and

a second pipe extending at said second angle from adjacent to said impact site toward said recovery unit and into which the plume projects.

22. (new) The apparatus of claim 21, further comprising a reflector in said first pipe that directs the light from said window toward said impact site.

23. (new) The apparatus of claim 22, wherein said reflector in said first pipe comprises a pair of reflectors that directs the light from said window toward said impact site.

24. (new) The apparatus of claim 21, wherein said target is a rotating cylinder, and said second angle is perpendicular to a tangent of said cylinder at said impact site.

25. (new) A nanocarbon producing apparatus, comprising:
a graphite target having an impact site;
a chamber in which said target is housed;
a window in a wall of said chamber for passage of light;
a light source that irradiates the light through said window onto said impact site, the light impacting said impact site at a first non-zero angle and ejecting a plume of nanocarbons at a second angle different from said first angle;

a recovery unit that collects the nanocarbons in the plume;
a pair of reflectors, including a parabolic reflector, between said window and said target that are arranged to direct the light at said first angle to said impact site; and

a pipe extending at said second angle from adjacent to said impact site toward said recovery unit and into which the plume projects.

26. (new) The apparatus of claim 25, further comprising a housing around said pair of reflectors and that extends from said window to said impact site.

27. (new) The apparatus of claim 25, wherein said target is a rotating cylinder, and said second angle is perpendicular to a tangent of said cylinder at said impact site.

28. (new) A nanocarbon producing apparatus, comprising:
a graphite target having an impact site;
a chamber in which said target is housed;
a window in a wall of said chamber for passage of light;
a light source that irradiates the light through said window onto said impact site, the light impacting said impact site at a first non-zero angle and ejecting a plume of nanocarbons at a second angle different from said first angle;
a recovery unit that collects the nanocarbons in the plume;
a partition between said window and said target that has an opening through which the light travels at said first angle to said impact site; and
a pipe extending at said second angle from adjacent to said impact site toward said recovery unit and into which the plume projects.

29. (new) The apparatus of claim 28, wherein said target is a rotating cylinder, and said second angle is perpendicular to a tangent of said cylinder at said impact site.